

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

March 26, 2007

TO: Internal File

THRU: Wayne Western, Engineer, Team Lead *WtW*

FROM: Joe Helfrich, Biology, Cultural Resources and Land Use *JH*

RE: Appendix X, Gob Vent Holes 10 through 17, Andalex Resources Inc., Centennial Mine, C/007/0019, Task ID #2766

SUMMARY:

On March 16, 2007 the Division received an amendment from Andalex Resources Inc. to drill eight primary and seven alternate gob vent holes over panel # 10. They are located on the Deadman 7.5 minuet quadrangle in Township 12 South Range 8 East, Sections 31 and 36. The project is intended to facilitate the uninterrupted mining and maximum recovery of the coal by lowering the percentage of methane gas in the mine. This memo will address the Biology, Cultural Resource and Land use sections of the regulations.

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TECHNICAL ANALYSIS:

GENERAL CONTENTS

PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

Analysis:

The applicant has submitted current, clear, or concise information for the review of the Biology, Archaeology and Land Use sections of the regulations.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

For the previous GOB hole project task # 2420, Senco-Phenix conducted a Class III survey for holes 5A, 7, 8, and 9. The results showed that there were no historic resources within the project area. The Division defined the "area of potential effect" as the proposed degas well sites and the 800-foot access road extension. The Division evaluated the survey information and made a finding of "*no historic properties affected*" for this project. There is current correspondence with SHPO for this project (03072006 Outgoing; ~03172007Incoming). For the GOB hole project task # 2698, Senco-Phenix conducted a Class III survey for holes 5B, 8A, five-acre buffers and an access corridor. The results showed that there were no historic resources within the project area. The Division defined the "area of potential effect" as the proposed degas

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well sites and the access corridor. The Division evaluated the survey information and made a finding of "*no historic properties affected*" for this project as well. The SHPO provided concurrence with the Division's findings by electronic mail on November 20, 2006. For the current GOB hole project task # 2766, Senco-Phenix also conducted two Class III surveys included as attachment 4-3. One on September 29, 2006 for holes 11 through 17, and one on December 6, 2006 for holes 10A through 16A. The Division has evaluated the survey information and made a finding of "*no historic properties affected*" for these two projects.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

Vegetation resource information is provided for in chapter three and attachment 3-5 of the application. Additional references to the approved MRP are included. Quantitative data required to characterize the proposed sites was obtained during the 2006-growing season. On October 31, 2006 Representatives from DOGM (Joe Helfrich), Andalex Resources (Dave Shaver) and MT. Nebo Scientific (Pat Collins) met at the DOGM Price Field Office and decided that due to the proximity and similarity of vegetative communities at existing site locations similar data could be used. On November 7, 2006 Pat Collins and Joe Helfrich conducted a site visit of the eight primary and seven alternate gob vent holes over panel # 10. At the conclusion of the site evaluation, it was determined that due to the vast amount of data and the consistency of the proposed site vegetation, additional sampling would not be required for each of the proposed alternate holes.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

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Analysis:

Fish and Wildlife resource information is provided for in chapter three and appendix D of the application. The information includes a description of the wildlife and habitat found in the proposed site locations and 2005 and 2006 raptor inventories, T&E species lists, mine water consumption calculations and reclamation practices designed to promote wildlife habitat.

Ungulates

The Permittee states that there is elk and deer habitat within the GOB hole project area, but that the habitat is not designated as critical or crucial.

Fish or other aquatics

There are no known fisheries close to the GOB hole sites within the Mathis lease.

Migratory Birds, Game Birds, and Raptors

There are 22-raptor nests within the permit and adjacent areas. The results of the 2004 survey show that two golden eagle nest were active, with one containing young.

There are sage-grouse leks in the "Park" area and somewhat near the GOB hole project. DWR may provide the information for those leks. This type of information is considered protected under the Division's formatting regulations.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL/PLANT SPECIES

The Division, in consultation with USFWS and Utah Heritage Group (DWR), does not believe that the GOB hole project will impact TES species or their habitat. The USFWS was concerned about possible bald eagles in the area. The DWR data however, did not show any occurrence for TES species within a 2.5-mile radius of the drilling sites located within T12S, R11E, Sections 31 and 36.

Mexican Spotted Owl (MSO)

Mel Coonrod (EIS) provided documentation stating that the models and other criteria do not indicate that there is suitable habitat for MSO within the GOB hole area. The Utah Heritage Group supports that there are no known observations of MSO within the project area.

Plants

The MRP provides a letter from Patrick Collins stating that he considered there is little probability that there are federally listed TE plant species within or near the holes drilled in

spring 2005. Dr. Collins conducted a survey of the eight primary and seven alternate gob vent holes over panel # 10. GOB 4 and did not observe TES species.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

LAND-USE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.22; R645-301-411.

Analysis:

The land use resource information is provided for in chapter 4 of the application. It includes a description of the land use at and adjacent to the proposed drill site locations, that being grazing, wildlife, open range, hunting and private use.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Archeological Site Maps

There are archeological maps showing known resource locations within the permit area. These maps are located at the Division's office in Salt Lake in the Confidential File section of the library.

Vegetation Reference Area Maps

The reference area map for the GOB hole project is included on page 9 of Attachment 3-5, (Vegetation Inventory proposed holes GVH 11-17).

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Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

OPERATION PLAN

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Regulatory Reference: 30 CFR 784.17; R645-301-411.

Analysis:

The Permittee's survey performed by Senco-Phenix has identified no parks or historic resources that mining operations may adversely affect. The Permittee has also included an adequate protection plan for this section of the regulations.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Protection and Enhancement Plan

Section 333, page 3-9 of the application describes mitigation and protection measures for wildlife and vegetation that will be employed during the drilling activity. Additional comments from the previous drilling project in the same location are provided.

Ungulates

The Division, in consultation with DWR, does not consider that traffic or construction will impact the ungulates during the GOB hole project in the Mathis lease.

Fish or other aquatics

The Division has no concerns that the project will impact fisheries or their habitat during the GOB hole project in the Mathis lease.

Migratory Birds, Game Birds, and Raptors

The Permittee will conduct fly-over raptor surveys during the years the GOB hole project is active (Appendix X, Sec. 322.200). Currently, the Division has no concerns that the project will impact nesting raptors or their nests as there are no nests within a 0.5-mile buffer zone of GOB hole sites.

The proposed area is habitat for the greater Sage Grouse, *Centrocercus Urophasianus*. Although not a T & E species the bird is listed as a Utah sensitive species. According to Leroy Mead, (Wildlife Biologist for The Division of Wildlife Resources), there are breeding areas or Lekks within several miles north of the proposed drilling area. The birds are usually on their leks throughout the month of April. The applicant does not plan to begin drilling until May 15, 2007. The Permittee has agreed to access the drill hole sites from the dirt road starting at the mine facilities area in Deadman Canyon. This southern access route will prevent impacting strutting sage grouse from encountering degas well-related traffic.

Endangered and Threatened Species

The Division, in consultation with USFWS and Utah Heritage Group (DWR), did not believe that the 2006 GOB hole project would impact TES species or their habitat. The Division extends the same finding of no impact for the eight primary and seven alternate gob vent holes over panel # 10.

The application includes the results of a plant TE survey for the 2005/2006 GOB project and a listing for Carbon County, table 3-3. According to the research and analysis performed by Mt. Nebo Scientific and EIS there are no known federally listed threatened and endangered plant and wildlife species within the proposed drill site locations. The Division will coordinate with the USFWS and Permittee to prevent taking if any known reports show that there are TE species within the area.

Colorado River Fish

The application includes the water consumption calculations that show there is a net gain of 45 acre-feet per year of water to the Colorado River system, table 3-4.

Bald and Golden Eagles

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There are no known bald or golden eagle nests within a 0.5-mile buffer zone of GOB sites in the proposed gob vent hole, (10 through 17), drilling area.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

According to the vegetation study there are no known wetlands within the in the proposed gob vent hole drilling area, (holes 10 through 17 over panel #10),.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

Section 333, page 3-9 of the MRP describes mitigation and protection measures for wildlife and vegetation that will be employed during the drilling activity. Additional protection measures are described in the MRP, section 333.300.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

Analysis:

The application includes a two-phase revegetation plan for the drill sites. First, the redistribution of topsoil and seeding, and second, well plugging and distribution of remaining topsoil.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The reclamation seed mix will be comprised of species indigenous to the area and capable of supporting the postmining land use for grazing and wildlife. The seed mix is included in chapter three page 3-13, table 3-2 of the application.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

The application includes enhancement and protection measures during the reclamation phase of operations. For the GOB hole project, enhancement measures include the application of a seed mix that is suitable for wildlife habitat. Additional protection measures are included in Section 333, page 3-9 of the MRP.

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Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation: General Requirements

For the GOB hole project, the Permittee plans to use seed and apply mulch. The seed mixes for interim and final reclamation are not the same. The interim seed mix will include a blend of native grasses. For final reclamation, the Permittee will use the final seed mix. The Permittee will apply wood fiber mulch at 2,000 pounds per acre. The Permittee will use the "reference area method" for measuring the standard of success. The NRCS will assign range site Ecological Site Descriptions and productivity values for the drill sites.

Revegetation: Timing

The applicant has proposed to initiate reclamation during the first favorable planting season, usually Fall.

Findings:

The information provided in the application is adequate to meet the requirements of this section of the regulations.

RECOMMENDATIONS:

The application is recommended for approval.